



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/804,236

03/19/2004

Jin Woong Kim

K-0624

6082

34610

7590

01/22/2007

FLESHNER & KIM, LLP

P.O. BOX 221200

CHANTILLY, VA 20153

EXAMINER

PERRIN, JOSEPH L

ART UNIT

PAPER NUMBER

1746

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
----------------------------------------	-----------	---------------

3 MONTHS

01/22/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/804,236

Applicant(s)

KIM ET AL.

Examiner

Joseph L. Perrin, Ph.D.

Art Unit

1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 20050207.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Specification*

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Lift for Drum-type Washing Machine.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 1-16 are rejected under 35 U.S.C. 102(a) as being clearly anticipated by KR 2004-0022991 to KIM *et al.* See especially the identical Figures.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 6 & 12 are rejected under 35 U.S.C. 102(b) as being anticipated by DE 537758 to MOOK. Re claim 1 MOOK discloses, for instance in Figure 2, a washing machine with a lift comprising a trapezoidal cross-section and pair of inclined sides, the

Art Unit: 1746

inclined sides including structure readable on friction plates integrally formed therein and having a multitude of protuberances which are capable of performing the intended use of increasing frictional force on laundry. Re claims 2 & 12, the protuberances are an array of projections having predetermined length, width & height and appear to be integrally formed with the lift.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 2-4 & 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over MOOK in view of JP 09-215894 to IWAKIRI *et al.* (hereinafter "IWAKIRI").

Recitation of MOOK is repeated here from above. MOOK discloses a washing machine lift with protuberances for increasing a washing action (i.e. via friction) but does not expressly disclose the material of the lift or friction plate or the protuberances being a series of ridges having substantially similar width and height.

Re claims 2 & 13-16, IWAKIRI teaches that it is known to form lifters from metal or resin (readable on rubber or plastic) (see translated paragraph [0016]). The position is taken that it would have been within the level and skill of one having ordinary skill in the art at the time the invention was made to form the lifters of MOOK from conventional manufacturing materials, such as those disclosed in IWAKIRI, in order to arrive at applicant's claimed invention since the use of such materials in forming lifters is common knowledge to one having ordinary skill in the art as evidenced by the prior art. Regarding claims 14 & 16, these claims are directed to the formation of the friction plates and are not afforded significant patentable weight in the claimed apparatus because the method of manufacturing the plates does not patentably distinguish the claimed invention since the structure is anticipated. The Examiner further notes that the manufacturing methods (i.e. embossing and injection molding) are conventional

manufacturing processes and are not considered to impart patentability to the disclosed plastic/metal apparatus.

Re claims 3-4, IWAKIRI teaches that it is known to provide washing machine lifters with protuberances for increasing a washing action in the form of a series of ridges having substantially the same height and width (see, for instance, Figure 10 and relative associated text). Thus, both MOOK and IWAKIRI disclose functional equivalent protuberances on a washing machine lift. Therefore, the position is taken that it would have been obvious to substitute the protuberances of MOOK with the protuberances of IWAKIRI since such a modification would have involved a mere change in the form or shape of a component. A change in form or shape is generally recognized as being within the level of ordinary skill in the art. *In re Dailey*, 149 USPQ 47 (CCPA 1976).

10. Claims 7 & 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over MOOK in view of U.S. Patent No. 5,782,111 to SIGHTS *et al.* (hereinafter "SIGHTS") or KR 1999-85001 to LEE. Recitation of MOOK is repeated here from above. MOOK discloses a washing machine lift with a uniform array of protuberances for increasing a washing action (i.e. via friction) and the protuberances being substantially a cylindrical shape. However, MOOK does not expressly disclose the protuberances being cubically shaped or nipple shaped.

SIGHTS teaches that it is known to provide protuberances to enhance friction and cleaning effect inside a drum-type washing machine "in the form of studs, rivets, bolts and the like" and that they "may be of any geometric configuration" (studs being

readable on cubical). LEE further discloses protuberances which read on nipple-shaped (see Figure 3). Therefore, the position is taken that it would have been obvious to substitute the protuberances of MOOK with the protuberances of SIGHTS or LEE since such a modification would have involved a mere change in the form or shape of a component. A change in form or shape is generally recognized as being within the level of ordinary skill in the art. *In re Dailey*, 149 USPQ 47 (CCPA 1976). Moreover, there would be a reasonable expectation of success in achieving the same results from uniform arrays of protuberances on washing machine lifters using the different geometries of the prior art (and other substantially equivalent geometries) for the purpose of providing increased frictional interaction between the lifter and the clothes being washed absent secondary considerations such as unexpected results.

11. Claims 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over MOOK in view of U.S. Patent No. 3,946,500 to BARRETT *et al.* (hereinafter "BARRETT"). Recitation of MOOK is repeated here from above. MOOK discloses a washing machine lift but does not expressly disclose the material of the lift. BARRETT teaches that it is known to form lifts from materials such as plastic or metal (see abstract).

The position is taken that it would have been within the level and skill of one having ordinary skill in the art at the time the invention was made to form the lifters of MOOK from conventional manufacturing materials, such as those disclosed in BARRETT, in order to arrive at applicant's claimed invention since the use of such

materials in forming lifters is common knowledge to one having ordinary skill in the art as evidenced by the prior art. Regarding claims 14 & 16, these claims are directed to the formation of the friction plates and are not afforded significant patentable weight in the claimed apparatus because the method of manufacturing the plates does not patentably distinguish the claimed invention since the structure is anticipated. The Examiner further notes that the manufacturing methods (i.e. embossing and injection molding) are conventional manufacturing processes and are not considered to impart patentability to the disclosed plastic/metal apparatus.

### ***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: U.S. Patent Publication No. 2005/0217035 & U.S. Patent No. 6,889,399 to STEINER *et al.*, which disclose a drum-type washing machine with lifters having protuberances; U.S. Patent No. 7,096,695 to NO *et al.*, which discloses a drum-type washing machine with lifters having protuberances; U.S. Patent No. 2,480,929 to HYMAN *et al.*, which discloses a drum-type washing machine with lifters having plastic protuberances; U.S. Patent No. 2,305,695 to HAYES, which discloses a drum-type washing machine with lifters having protuberances

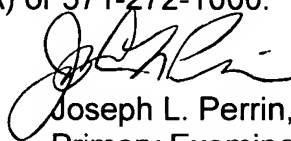
13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph L. Perrin, Ph.D. whose telephone number is (571)272-1305. The examiner can normally be reached on M-F 7:00-4:30, except alternate Fridays.



Art Unit: 1746

14. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael E. Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

15. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Joseph L. Perrin, Ph.D.  
Primary Examiner  
Art Unit 1746

JLP